3M

Peltor™ DECT-Com II™

The Sound Solution

User's manual for DECT-Com II

DECT 1.8 GHz

CE

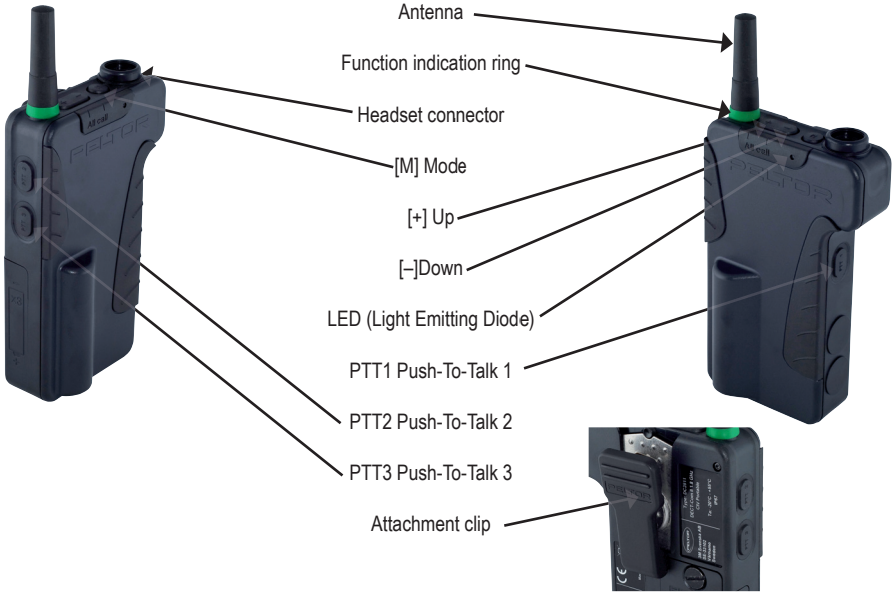
PELTOR™

QUICK GUIDE – Peltor DECT-Com II

Button	Function
[M]	Switch DECT-Com II unit on/off Select function in the menu
[+] [–]	Increase the level of selected function Decrease the level of selected function
[M] & [+] [M] & [–]	Switch DECT-Com II unit on as base Switch DECT-Com II unit on as portable
[PTT1]	Press twice to talk in conference 1 Press once to listen in conference 1
[PTT2]	Press twice to talk in group 2 Press once to listen in group 2 PTT for external device in upper connector
[PTT3]	Press twice to talk in group 3 Press once to listen in group 3 PTT for external device in lower connector
[+] & [–]	All call (short simplex transmission)

For latest revised full user's instructions, please see **www.3m.com/peltorcomms** on the Internet.
Look in section **"Rest of the world"** and find **"PDF LIBRARY"**, where you can read or download multilingual information about the Peltor DECT-Com II system!

(Fig. A)



INDEX

1	INTRODUCTION
2	MAIN UNITS
2.1	SWITCH A MAIN UNIT ON AND OFF
2.2	BASE/PORTABLE UNIT
2.3	PORTABLE UNIT
2.4	LOG IN TO OR OUT OF A CONFERENCE
2.5	MAIN UNITS CONTROLS
2.6	TECHNICAL INFORMATION, MAIN UNITS DC2811, DC2812, DC2815
3	POWER SUPPLY
3.1	BATTERIES
3.2	FIXED MOUNTED POWER SUPPLY
4	ANTENNAS
4.1	GENERAL ANTENNA
4.2	OMNI DIRECTIONAL VEHICLE ANTENNA
5	EXTENSION OF THE SYSTEM
5.1	EXTERNAL EQUIPMENT
5.2	REMOTE WIRELESS PTT
6	ACCESSORIES AND SPARE PARTS
7	APPROVALS
8	WARRANTY
9	PROGRAMMING DECT-Com II UNITS

PELTOR DECT-Com II

1. INTRODUCTION

Peltor™ DECT-Com II™ is a wireless duplex intercom system, operating on the 1.8 GHz DECT-frequencies, which are license free in most countries.

The products in the Peltor DECT-Com II family offer simple and efficient wireless duplex communication with up to 9 active users talking in full conference and additionally up to 40 listeners with possibility to quick "break in" to the conference. In a system with more than 9 users any listening participant can change from listening to speaking. The earliest active speaker will then be "degraded" to a listener in the conference and any other listener can follow, replacing active speakers in the order "first in – first out".

There are basically two versions of the DECT-Com II main unit; base/portable units and portable units. The portable units work via a base unit. A base/portable unit can be either used as base or portable, alternatively.

Due to low power output and high frequency it is a short range communication system. The nominal working range is approximately 250 metres outdoors in line of sight. The working range may be shorter due to actual conditions.

Read all of these instructions carefully before use and save for future reference!
Never modify or alter any product!

3M does not accept liability of any kind, be it direct or consequential (including, but not limited to, loss of profits, business and/or goodwill) arising from reliance upon any information herein provided by 3M. The user is responsible for determining the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.

2. MAIN UNITS

A Peltor DECT-Com II **portable unit DC2811** is a personal radio transmitter/receiver to which a headset should be connected. Any Peltor headset with J11 connector wired according to "Peltor standard" can be connected to a Peltor DECT-Com II portable unit.
A Peltor DECT-Com II **base/portable unit DC2812** is a central radio transmitter/receiver, which is needed to communicate all information from and to all portable units in a DECT-Com II system.
A Peltor DECT-Com II **extension base/portable unit DC2815** is a central radio transmitter/receiver, equal to a base/portable unit, but to which external equipment can be connected to extend the DECT-Com II system.
Any Peltor headset with J11 connector wired according to "Peltor standard" can also be connected to a Peltor DECT-Com II base/portable unit.

2.1 SWITCH A MAIN UNIT ON AND OFF

→ Switch a DECT-Com II main unit on by pressing the **[M]** button.
In a headset, connected to the headset connector on the unit, a voice confirmation **"POWER ON"** or **"BASE, POWER ON"** is given and the **LED** (light emitting diode) is flashing, indicating that the unit is in **SET UP MODE.**

When a **base unit** is ready for use, a voice message **"BASE, GROUP 1"** is given. The **LED** on the unit is flashing slower.
When a **portable unit** is ready for use, a voice message **"GROUP 1"** is given. The **LED** on the unit is lit.
Notice: All units are always started in listen only mode in group 1.

2.1.1 SWITCH A MAIN UNIT OFF

→ Switch a unit off by pressing and holding the [M] button for approximately 2 seconds.
A voice confirmation "POWER OFF" is given, the LED is unlit, and the unit is turned off.

2.2 BASE/PORTABLE UNIT

2.2.1 SWITCH A BASE/PORTABLE UNIT ON

→ Switch a base unit on by pressing the **[M]** button.
In a headset, connected in the headset connector on the unit, a voice confirmation **"BASE, POWER ON"** is given and the **LED** (light emitting diode) is flashing, showing that the base unit is setting up the system.
Notice: Initially, a base/portable unit is starting up as a base.
(See also 2.2.3 ALTERNATIVE OPERATION MODES OF BASE/PORTABLE UNITS below.)

After approximately 20 seconds, the system is ready and a voice message **"GROUP 1"** is given. The **LED** on the unit is flashing slower, showing that the base unit is ready for use and portable units can be logged on.
(The **LED** can be switched off with use of special DECT-Com II software.)

2.2.2 SWITCH A BASE/PORTABLE UNIT OFF

→ Switch a base unit off by pressing and holding the [M] button for approximately 2 seconds.
A voice confirmation "POWER OFF" is given, the LED is unlit, and the unit is turned off.

2.2.3 ALTERNATIVE OPERATION MODES OF BASE/PORTABLE UNITS

By different start-up sequences the **base/portable** main units can be set up to work either as a base or as a portable unit.

2.2.3.1 START THE UNIT AS A BASE UNIT

→ Switch the unit on by pressing and holding the **[M]** and **[+]** buttons simultaneously for approximately 2 seconds.
In a headset, connected in the headset connector on the unit, a voice confirmation **"BASE, POWER ON"** is given, confirming that the unit is started as a base unit.

After approximately 20 seconds, the system is ready and a voice message **"GROUP 1"** is given. The **LED** on the unit is flashing slower, showing that the base unit is ready for use and portable units can be logged on.
(The LED can be switched off with use of special DECT-Com II software.)

A user with a headset connected in the headset connector on a base unit can also be participating in a DECT-Com II conference, similar to a portable unit.

Notice: All units are always started in listen only mode in group 1.
Last used alternative (base or portable) is remembered between sessions.

2.2.3.2 START A BASE/PORTABLE UNIT AS A PORTABLE UNIT

Check that the actual base unit is switched on and ready!
→ Switch the unit on by pressing and holding the **[M]** and **[–]** buttons simultaneously for approximately 2 seconds.
In a headset, connected in the headset connector on the unit, a voice confirmation **"POWER ON"** is given, confirming that the unit is started as a portable unit.

After approximately 10 seconds, the unit is ready and a voice message **"BASE #, GROUP 1"** is given. The **LED** on the unit is lit, showing that the unit is ready for use as a portable unit, and is logged on to base No. #.
(The LED can be switched off with use of special DECT-Com II software.)

Notice: All units are always started in listen only mode in group 1.
Last used alternative (base or portable) is remembered between sessions.

2.2.4 MAKE A BASE UNIT READY FOR PORTABLES TO BE REGISTERED

Each portable unit should be registered to a base unit to be part of a DECT-Com II conference.
→ With the base unit in **LISTEN-ONLY** and **VOLUME MODE**, double press on the **[M]** button to enter **REGISTRATION MODE.**
A base unit in **REGISTRATION MODE** is indicated by a voice confirmation **"SUBSCRIPTION ON"** and the **LED** flashing slowly.

→ When all portable units are registered to the base unit, exit **REGISTRATION MODE** by double pressing **[M]** button.

Notice: All main units are delivered open for registration from factory and a DECT-Com II system can be started directly "out of the box" by first starting a base/portable unit as a base as described above and after that, all portable units, sequentially and continually, as described above.
After the first turn off of the base unit, the configuration of the system is fixed and future change of units has to be handled according to description above.

If your system is delivered pre-registered in a certain configuration by your ***Authorised Peltor DECT-Com II Dealer****, all future registration has to be handled by your ***Authorised Peltor DECT-Com II Dealer****).

2.3 PORTABLE UNIT

2.3.1 SWITCH A PORTABLE UNIT ON

→ Switch the portable unit on by pressing the **[M]** button.
In a headset, connected in the headset connector on the unit, a voice confirmation **"POWER ON"** is given and the **LED** on the unit is flashing green, showing that the unit is logging on to the base.
When the unit is ready for use, a voice message **"BASE #1, GROUP #1"** is given and the **LED** is steady green.
Notice: All portable units normally start in listen only mode in group 1.

At first start up, a voice message **"SEARCHING"** is given. When a base is found a voice message **BASE (number), GROUP 1"** is given. When restarting a portable unit, which is programmed to be able to work with more than one base, it will try to log on to the last used base.

2.3.2 SWITCH A PORTABLE UNIT OFF

→ Switch the portable unit off by pressing and holding the **[M]** button for approximately 2 seconds.
A voice confirmation **"POWER OFF"** is given and the **LED** is turned off.
If the unit is still searching for a base when switching off, a voice confirmation **"WARNING, POWER OFF"** is given.

2.3.3 REGISTER A PORTABLE UNIT ON A BASE

Each portable unit is registered to at least one base unit to be part of a DECT-Com II conference.
The unit is searching for bases. A voice message **"SEARCHING"** is given.
→ With the portable unit in **LISTEN-ONLY** and **VOLUME MODE**, double press **[M]** button to enter **BASE SELECT MODE.**
A portable unit in **BASE SELECT MODE** is indicated by flashing **LED.**

→ When a base is selected, exit **BASE SELECT MODE** by briefly pressing **[M]** button.
A voice confirmation "**BASE (number)**, **GROUP 1"** is given.

Notice: All main units are delivered open for registration from factory and a DECT-Com II system can be started directly "out of the box" by first starting a base/portable unit as a base as described above and after that, all portable units, sequentially and continually, as described above.
After the first turn off of the base unit, the configuration of the system is fixed and future change of units has to be handled by your ***Authorised Peltor DECT-Com II Dealer*)***.

If your system is delivered pre-registered in a certain configuration by your Authorised Peltor DECT-Com II Dealer*), all future registration also has to be handled by your Authorised Peltor DECT-Com II Dealer*).

(See also above 2.2.4 MAKE A BASE UNIT READY FOR PORTABLES TO BE REGISTERED.)

2.3.4 LOG ON A PORTABLE UNIT TO A BASE

There are two versions of log on:
1. At first power on (out of the box), the base unit will allow any portable unit to log on. (See 2.2.4 MAKE A BASE UNIT READY FOR PORTABLES TO BE REGISTERED)
2. At any next start up you will automatically be logged on to the base.

When the log on sequence is finished, the **LED** on the unit is fixed green and a voice message **"BASE (number), GROUP 1"** is given, confirming that the portable unit is logged on as a listen-only to the base and group with the given numbers.

! If no confirming message is given; check that the base unit is switched on and in range!

! If the message ***"WARNING, SUBSCRIPTION EMPTY"*** is given; there is no base unit registered to log on to.

! If the messages ***"SIGNAL LOW, OUT OF RANGE"*** are given; the portable unit has no connection with the base unit. After approximately 20 seconds a message ***"SEARCHING"*** is given, indicating that the unit is searching for a base unit. You may be too far away from the base, or the base unit is switched off!
When in contact with a base unit again; a message ***"BASE (number), GROUP 1"*** is given, confirming that the unit is logged on to a base with the actual number.

2.3.5 LOG ON A NEW PORTABLE UNIT TO A BASE

If, later, another portable unit should be logged on to the base, the actual base unit must be set in **REGISTRATION MODE** (see 2.2.4 MAKE A BASE UNIT READY FOR PORTABLES TO BE REGISTERED). The portable unit must be in **SEARCH MODE** (see 2.3.6 SEARCH A BASE FROM A PORTABLE UNIT below.)

Notice: All main units are delivered open for registration from factory and a DECT-Com II system can be started directly "out of the box" by first starting a base/portable unit as a base as described above and after that, all portable units, sequentially and continually, as described above.
After the first turn off of the base unit, the configuration of the system is fixed and all future change of any units has to be handled by your ***Authorised Peltor DECT-Com II Dealer*)***.

If your system is delivered pre-registered in a certain configuration by your ***Authorised Peltor DECT-Com II Dealer*)***, all future registration also has to be handled by your ***Authorised Peltor DECT-Com II Dealer*)***.

2.3.6 SEARCH A BASE FROM A PORTABLE UNIT

→ In **BASE SELECTION MODE** on a portable unit; double press on the **[M]** button to enter **BASE SEARCH MODE**.
A voice confirmation **"SEARCHING"** is given repeatedly, confirming that the unit is searching for active bases in range.
When a base is found a voice confirmation **"BASE (number), GROUP 1"** is given.

To find more bases, repeat this procedure again.

2.3.7 SELECT ANOTHER BASE FROM A PORTABLE UNIT

→ In **VOLUME MODE** on a portable unit in **LISTEN MODE**; double press on the **[M]** button to enter **BASE SELECTION MODE.**
A voice confirmation **"BASE"** is given, urging to select a base.
→ Press **[+]** or **[–]** to cycle through the numbers of available bases and an auto setting
A voice confirmation is given for each available choice: **"AUTO", "ONE", "TWO"** …
Stop at your preferred base number (or auto, see below).
→ Log on to the base by pressing the **[M]** button and return to listen only menu items by pressing briefly on the **[M]** button.
A voice confirmation **"LOGIN"** followed by **"BASE (number), GROUP 1"** is given, confirming that the portable unit is logged on to the base with the given number as a listener in the given group.

If **"AUTO"** is chosen, the unit will log on to the base with the latest used base or the next available.
Notice: If there is more than one DECT-Com II system within range of each other, the portable units could be pre-designated to certain bases respectively. Then, if the choice **"AUTO"**, the unit will log on to the first found of the pre-designated bases.
(For programming DECT-Com II units, a special PC software is needed. Contact your ***Authorised DECT-Com II Dealer**)*** !)

2.4 LOG IN TO OR OUT OF A CONFERENCE

Up to 9 active speakers and additionally more than 40 listeners can be members in a DECT-Com II conference, on the same base at the same time. They can be subdivided in up to 3 conferences with fewer members in each group.

2.4.1 LOG IN AS A LISTEN-ONLY CONFERENCE MEMBER

A portable unit is initially logged in to a conference as a **LISTEN-ONLY** member, taking part in the DECT-Com conference as a listener only.
A voice confirmation **"BASE (number), GROUP (number)"** with the actual conference number and group is given.

At any time it is possible for a **LISTEN-ONLY** member to enter as an **ACTIVE** member in a conference group by pressing a **[PTT#]** button. If the conference already consists of the maximum number of members, the first logged in **ACTIVE** member is pushed out to be a **LISTEN-ONLY** member.

2.4.2 LOG IN AS AN ACTIVE CONFERENCE MEMBER

→ Double press on **[PTT #]** to break in to one of the max. three conferences.
A double tone is confirming that you are an active member in the selected conference.
→ Press once on the same **[PTT #]** again to change to **LISTEN-ONLY MODE**.
A single tone is confirming that you are a listen-only member in the conference.

2.4.3 LOG IN AS A MEMBER IN ANOTHER CONFERENCE GROUP

→ Press on another **[PTT #]** button to become a member in another conference.
A tone is confirming that you are a member in the selected conference.

2.4.4 AUTO TALK

A system for maximum 9 users, using only group 1, can be programmed in a configuration where all the portables always should be in talk mode.
Automatic talk mode makes it possible to ensure that all the members in the small group always are speakers in the conference, as soon as they are in range of the base unit.
(For further information; contact your ***Authorised Peltor DECT-Com II Dealer*).)***

2.5 MAIN UNITS CONTROLS

2.5.1 MODE

The **MODE** button **[M]** controls functions of the unit.

→ Step forward through the **MODE** steps in the menu by pressing briefly on the **[M]** button.
Voice messages **"VOX", "MICROPHONE", "VOLUME"** are given respectively to confirm the actual mode.
→ Step backwards through the **MODE** steps by double press on the **[M]** button.
Voice messages **"MICROPHONE", "VOX", "VOLUME"** are given respectively to confirm the actual mode.

→ Use the **[+]** and **[–]** buttons to adjust the settings respectively.
Current settings are stored when the unit is switched off.

Notice: A double-press in **VOLUME MODE** and **LISTEN ONLY MODE** on a base unit will put the unit in **REGISTRATION MODE** (see 2.2.4 MAKE A BASE UNIT READY FOR PORTABLES TO BE REGISTERED).
Double press in **VOLUME MODE** and **LISTEN ONLY MODE** on a portable unit will put the unit in **BASE SELECTION MODE** (see 2.3.7 SELECT ANOTHER BASE FROM A PORTABLE UNIT).

2.5.1.1 VOLUME (sound pressure)

In **VOLUME MODE** the level of the incoming audio can be set in 5 steps.

→ Use the **[+]** or **[–]** button to set the sound level from the DECT-Com unit.
A voice message confirms the new setting each time you press a button.

2.5.1.1.1 VOLUME BOOST (higher sound pressure)

The volume levels on all active volume steps can be increased by +6 dB. For instance, this function can be used to compensate for additional attenuation from simultaneous use of ear-plugs and headset.
→ Press the **[+]** button for 10 seconds to activate **VOLUME BOOST** function.
A voice confirmation **"EXTRA HIGH VOLUME"** is given when you have activated the function.

WARNING: High sound pressure!
Last used setting remains between sessions!

→ Press the **[–]** button for 10 seconds to deactivate **VOLUME BOOST.**
A voice confirmation **"NORMAL VOLUME"** is given when you have deactivated the function.

2.5.1.2 VOX (Voice operated transmission)

In simplex radio communication, VOX normally means that reception of the incoming sound from the receiver is completely stopped when sound of a certain level reaches the microphone and switches the radio to transmission mode.
With the full duplex DECT-Com II units, VOX means "a voice operated noise gate", which can prevent from transmitting background noise up to a certain sound level from units where the user do not speak, but can constantly, all the time, listen to the incoming sound from the conference.

→ In **VOX MODE**, use the **[+]** and **[–]** buttons to set the VOX sensitivity.
There are 7 **VOX** settings; **"OPEN – 1 – 2 – 3 – 4 – 5 – OFF"**, where **OPEN** means constantly transmitting (continuous full duplex) and OFF means that you have to use a **[PTT#]** button to transmit (see 2.5.2 PTT).
A voice message indicates your selected choice.
Last used setting is remembered between sessions.

IMPORTANT: If you are using a Peltor headset which has a microphone with ambient-noise compensation, always position the microphone very close to your lips (max. 3 millimetres) for optimal VOX function!

2.5.1.3 MICROPHONE

One of four microphone types (carbon, electret, dynamic or low impedance) can be chosen by the user, to adapt the amplification in the DECT-Com unit to the electrical signal level of the actually used microphone.
→ In **MICROPHONE MODE**, use the **[+]** and **[–]** buttons to set the used microphone type.
A voice message indicates your selected choice.
Last used setting is remembered between sessions.

2.5.2 PTT (Push-To-Talk)

There are three Push-To-Talk buttons **[PTT #]** on a DECT-Com II main unit.
PTT1 is always connected to conference group 1 while PTT2 and PTT3 are intended for groups 2 and 3 and/or for possibly attached external equipment (See 5.1 EXTERNAL EQUIPMENT below).

→ Press on a **[PTT#]** button to enter as a member in a DECT-Com conference (see 2.4 LOG IN TO OR OUT OF A CONFERENCE).

The **PTT** function is also always available in **VOX MODE**.

Notice: If PTT2 and/or PTT3 are assigned for control of external communication equipment, separate user's instructions may apply for any special application. Contact your ***Authorised Peltor DECT-Com Dealer**)*** for more information. (See 5.1 EXTERNAL EQUIPMENT)

2.5.3 ALL-CALL (Emergency call etc.)

It is possible to communicate, in simplex mode, with DECT-Com II units in all groups on the base unit. It is also possible to reach other DECT-Com II conferences if their base units are synchronised and in range of each other.
The synchronisation should be done by starting the systems in range of each others. If this function should always be accessible, the bases have to constantly be in range (for instance as fixed mounted bases). If the bases have been out of range of each others, it may take up to 20 minutes to get them synchronised again!

→ Press and hold **UP [+]** and **DOWN [–]** buttons simultaneously to transmit a short message.
A double tone is confirming that the **ALL-CALL** is activated. The transmission period is limited, normally to max. 30 seconds.

2.5.4 LOCKED BUTTONS

To avoid unwanted changes in the settings of functions, it is possible to lock all buttons, so that only the **ON/OFF** function is active. This can preferably be combined with the automatic talk mode function. (See also 2.4.4 AUTO TALK above.)

Notice: Many of the functions and settings in DECT-Com II can be adjusted according to the user's demands.
For further information; contact your ***Authorised Peltor DECT-Com II Dealer**)*.

2.5.6 OUT OF RANGE

Peltor DECT-Com II is a short range communication system. (See 2.6 TECHNICAL INFORMATION, MAIN UNITS below.)

If the portable unit is close to the actual maximum working range from the base unit, a voice message **"SIGNAL LOW"** is given in the connected headset.

When the portable unit is out of range from the base unit, a voice messages **"SIGNAL LOW, OUT OF RANGE, OUT OF RANGE"** is given in the connected headset. After another 20 seconds, the may try to find another base and a voice message **"SEARCHING"** is given.

When the portable unit is in range again, or another base is found, a voice message **"BASE (number)"** is given in the connected headset.

If automatic talk mode function is activated, a portable unit, after being out of range, always return to **TALK MOD**E as soon as it is in range again. (See 2.4.4 AUTO TALK above.)

2.6 TECHNICAL INFORMATION, MAIN UNITS DC2811, DC2812, DC2815

Frequency range:		1880 – 1900 MHz
Operation mode:		Duplex
Output power:		Max. 250 mW, average 10 mW (portable) / 120 mW (base)
Current consumption:	Base/Portable unit DC2812, DC2815	as base typ. 320 mA (4 portables system) as portable; typ. 160 mA in talk mode
	Portable unit DC2811	40 mA (listen only) / 60 mA (talk mode)
Working range:	Outdoors	typ. 250 m (line of sight)
	Indoors	typ. 50 m
Battery life cycle:	With rechargeable battery Peltor DC2033	approx. 6 h (base unit) approx. 40 h (portable unit)
	With 6xAA additional 2100 mAh NiMH batteries in DC2032	approx. 18 h (base unit) approx. 18 h (base unit)
Usage temperature:		-26°C to +55°C
Storage temperature:		-55°C to +70°C without batteries (Store batteries according to battery manufacturer´s instructions)
Weight excl. batteries:	Incl. battery pack DC2033	310 g (DC2812, DC2912)
Microphone types:	Carbon	300 mV typ. Medium power feed enabled; 20mA
	Electret	20 mV typ. Low power feed enabled; 1mA
	Dynamic	4 mV typ.
	Low impedance	0,4 mV typ.
Headset connector:		Peltor J11, type M9177/4-1 (NEXUS TJT-102)

3. POWER SUPPLY

A main unit can generally be power supplied with a rechargeable battery pack **DC2033** in the battery compartment. The external battery carrier **DC2032**, for 6 or 3 type AA batteries, can also be used to increase the usage time of the unit. Also, in low or high temperatures (below 5°C or above 45°C), where the NiMH batteries do not have full capacity, a main unit can be continuously power supplied in a power supply holder **DC2068** with a mains adapter **DC2061**

NOTICE! See below concerning the mandatory mains adapter **DC2061**, which is included in the package at delivery of the power supply/holder **DC2068**!

When the energy in the battery is low, voice messages announce that it is time to charge the batteries or, when appropriate, to change batteries.

! *The message "**BATTERY LOW**" indicates that the energy in the battery is low and you should charge or change battery as soon as possible.*

! *The message "**BATTERY EMPTY**" indicates that the energy in the battery is very close to empty and the unit will automatically switch off!*

3.1 BATTERIES

3.1.1 RECHARGEABLE BATTERY PACK

A Peltor rechargeable battery pack **DC2033** is needed for the main units.

3.1.1.1 CHARGING A BATTERY PACK

A rechargeable NiMH-battery pack **DC2033** has to be charged in a main unit placed in a Peltor charger/holder **DC2064**. It is sealed according to IP42 for use in dry areas,.
Notice: See also 3.1.3 TECHNICAL INFORMATION, DC2033 below.

NOTICE! No other power source than the Peltor DECT-Com II mains adapter **DC2061** (included in the package at delivery) may be used together with the power supply/holder **DC2064**! It is equipped with exchangeable European, UK and US type mains connectors, for the input of 100 — 240 Volt AC, 50/60 Hz.

3.1.1.2 CHANGE OF INTERNAL BATTERY PACK

àSwitch the unit off by pressing and holding the [**M**] button for approximately 2 seconds.
A voice confirmation "**POWER OFF**" is given and the LED is turned off.

Turn the clip aside (Fig.1) and loosen the screw with a suitable tool (Fig.2). (**Caution**: When loosening the screw, do not use your fingernail, it can be broken!)
Open the battery lid and replace the battery (Fig.3).
Push the battery pack down firmly to get the connecting plates in contact with the pins.
Hook the battery lid on to the bottom of the unit, close it, press down and tighten the screw again with the tool. (**Caution**: When tightening the screw, do not use your fingernail, it can be broken!)

Fig.1

Fig.2

Fig.3

3.1.1.3 TECHNICAL INFORMATION, DC2033

Chemical structure:	NiMH
Nominal Voltage:	3.6 V
Nominal Capacity:	2100 mAh
Usage temperature:	-25°C to +55°C
Storage temperature:	-55°C to +70°C **Notice**: Remove the battery pack from the main unit if it should not be used in a month's time, or longer.
Charging temperature:	+5°C to +45°C
Charging time:	Up to 12 hours at 20°C **Notice**: It is normal that the battery may become warm during charging or use. At first time use, or after long time storage, it may take three to five full charging cycles to reach full battery capacity.
Battery life time:	Approximately 250 charge cycles. **Notice**: The battery capacity will decrease after many recharge cycles or as the battery pack ages.
Weight:	Approximately 100 g

3.1.2 CHARGER/HOLDER DC2064

The battery pack **DC2033** must be charged in a main unit; **DC2811**, **DC2812** or **DC2815**.
Charging is indicated with a red LED on the charger. When the LED turns green, the charging is finished. An initial flashing red/green LED indicates that the charger unit is detecting/analysing a newly inserted battery.

3.1.2.1 TECHNICAL DATA, CHARGER/HOLDER DC2064

Input voltage: 9 V DC
Charging time of **DC2033** in a main unit: Up to approximately 12 hours
Charging temperature interval: +5°C to +45°C

NOTICE! No other power source than the Peltor DECT-Com II mains adapter **DC2061** (included in the package at delivery) may be used together with the charger/holder **DC2064**! It is equipped with exchangeable European, UK and US type mains connectors, for the input of 100 — 240 Volt AC, 50/60 Hz.

3.1.3 EXTERNAL BATTERY CARRIER

The external battery carrier **DC2032** can be mounted on the back of the main unit. It offers extra energy for longer usage time. Any standard batteries (6 x 1.5 Volts, type AA) or rechargeable batteries (6 x 1.2 Volts, type AA) can be used.
Notice: It is recommended to extend working time of a main unit used as a portable base, by adding extra energy from batteries in a battery carrier.

3.1.3.1 MOUNTING OF EXTERNAL BATTERY CARRIER

Remove the attachment clip **DC2071**, if it is mounted on the back of the main unit.
Open the lid and place 3 or 6 batteries inside the battery carrier **DC2032**, according to the figures below.

Fig.11

Fig.12

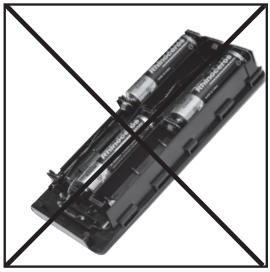


Fig.13

NOTICE! Check that the batteries are correctly mounted before closing the battery carrier!

Mount the battery carrier on the main unit according to the figures below.
A voice message "**EXTERNAL BATTERY**" indicates that the external battery is in use.
Tighten the screw with a suitable tool. (**Caution**: When tightening the screw, do not use your fingernail, it can be broken!)

Fig.21

Fig.22

Fig.23

3.1.3.2 CHANGE OF BATTERIES IN EXTERNAL BATTERY CARRIER

Remove the battery carrier according to figures above in the reversed order; Fig.23, fig.22, fig.21. (**Caution**: When loosening the screw, do not use your fingernail, it can be broken!)

Remove the batteries from the battery carrier **DC2032**.
Place 3 or 6 charged batteries inside the battery carrier **DC2032**,

---

NOTICE! Check that the batteries are correctly mounted before closing the battery carrier!

Mount the battery carrier on the main unit according to the figures below.
A voice message "**EXTERNAL BATTERY**" indicates that the external battery is in use.

Tighten the screw with a suitable tool. (**Caution**: When tightening the screw, do not use your fingernail, it can be broken!)

3.1.3.3 RECHARGEABLE BATTERIES IN EXTERNAL BATTERY CARRIER

Any rechargeable batteries in the battery carrier **DC2032** must be taken out to be charged with an appropriate external charger according to the batteries specification.

3.2 FIXED MOUNTED POWER SUPPLY

Any main unit, which should not be portable (carried around), could preferably be placed in a fixed mounted power supply/ holder **DC2068** for "unlimited" working time without charging or changing batteries. Also the power supply/holder may be used for fixed mount of main units in high or low temperatures (below +5°C or above +45°C), where NiMH batteries can not be charged.

Notice: The Power Supply/holder **DC2068** will supply a main unit with sufficient power also in usage temperatures from -26°C to +55°C, but it will only "maintenance charge" the internal rechargeable battery pack**!**
A main unit with a rechargeable NiMH-battery pack **DC2033** in "good condition" may also have enough power for serving the system properly during a short power outage!

NOTICE! No other power source than the Peltor DECT-Com II mains adapter **DC2061** (included in the package at delivery) may be used together with the power supply/holder **DC2068**! It is equipped with exchangeable European, UK and US type mains connectors, for the input of 100 — 240 Volt AC, 50/60 Hz.

3.2.1 AUTOMATIC RESTART OF A BASE UNIT

With the Connector Sealing Plug **DC2078** it is possible to have a base unit, which is fixed placed in a power supply **DC2068**, automatically restarted after a power failure. Instead of a headset in the connector on top of the base unit, the "arm" of the connector sealing plug is pressing on the **[M]** button of the main unit, enabling automatic restart after shorter power outages.

3.3 MAINS ADAPTER

The mains adapter **DC2061** is also available as a separate spare part. It is equipped with exchangeable European, UK and US type mains connectors, for the input of 100 — 240 Volt AC, 50/60 Hz and may replace a faulty mains adapter for a charger/holder **DC2064** or a power supply/holder **DC2068**.
(It should also be used with a programming charger/holder **DC2065**, but which is only available for Authorised Peltor DECT-Com II Dealers.)

3.3.1 TECHNICAL DATA, MAINS ADAPTER DC2061

Input: 100 – 240 V≂, 50/60 Hz, 400 mA
Output: 9.0 V 1.0 A

4. ANTENNAS

A DECT-COM II main unit normally works with one of two antennas; one internal on the printed circuit board and one external antenna, mounted in a connector on top of the unit.

4.1 GENERAL ANTENNA

The external antenna **DC2041**, which is delivered with all DECT-Com II main units, should normally be mounted on the main unit together with a plastic ring (see 4.1.1 UNIT FUNCTION INDICATORS below).

4.1.1 UNIT FUNCTION INDICATORS

A package **DC2048** with 3 differently coloured plastic rings is enclosed in the box of each DECT-Com II main unit. The rings are meant to seal around the antenna connector, but also to indicate the function of the unit; for instance a red ring for a base unit, a green ring for a portable unit and a black ring for an "other" unit.

4.2 OMNI DIRECTIONAL VEHICLE ANTENNA

The omni directional antenna **DC2046,** with magnetic foot, can replace the external antenna **DC2041**, for instance to improve communication with portable units outside of a vehicle if the base unit is placed inside.

Notice: No other external antennas than DC2041 or DC2046 are allowed for use with the DECT-Com II system.

4.2.1 TECHNICAL DATA, ANTENNA DC2046

Antenna, electrical data

Frequency range:		1710 – 1990 MHz
VSWR:		Typical 1.2 : 1 or less
Gain:		Isotropic 5 dBi
		Compared to ¾ wave 3 dB
Polarisation:	Vertical	
Pattern:		Omni directional
Impedance:		50 Ohm

Antenna, mechanical data

Whip length:	138 mm	
Base length:	20 mm	
Operating temp.:		-40 to +80 ºC
Material:		Stainless steel with plastic end tip
Colour:		Black

Magnet, mechanical data

Diameter:	102 mm
Height, mounted	40 mm
Cable	coax., detachable
Length	5 m
Connector	RSMA

5. EXTENSION OF THE SYSTEM

The DECT-Com II system may be extended by connecting external communication equipment.
a second connector other additional features.

Consult your ***Authorized Peltor DECT-Com II Dealer**)*** for the following options!

5.1 EXTERNAL EQUIPMENT

The Extension Base/Portable unit **DC2815** is equipped with a connector for connecting external equipment, like communication radios, telephones etc.

In the list of **ACCESSORIES AND SPARE PARTS** (see below) you will find adapter cables for some common communication radios, a general telephone cable and a cable for ground mechanic.

5.1.1 FURTHER EXTERNAL EQUIPMENT

On demand, Extension Base/Portable unit **DC2815** can be equipped with a second connector to further improve the system by connecting even more external equipment. This option implies some extra delivery time.

5.2 REMOTE WIRELESS PTT

The Peltor wireless PTT transmitter unit **WLTX-B** allows remote control of PTT functions on the main unit.
This option implies some extra delivery time.

5.2.1 DESCRIPTION OF WIRELESS PTT

The wireless PTT unit is a push button, combined with a radio transmitter for sending impulses to a corresponding receiver, which may have to be mounted in a main unit after order.

A press on the button on the wireless PTT transmitter unit is equal to a press on a PTT button on a main unit, in which a corresponding receiver is placed and which is paired to the transmitter. For example, a press on a wireless PTT transmitter will be recognised by the main unit as a press on the PTT button with which it is paired. Two wireless PTT transmitters can be linked to one receiver unit.

The use of this wireless PTT transmitter is license free in the European Community.
The user is responsible for any license in other countries. Consult your ***Authorized Peltor DECT-Com II Dealer**** !

5.2.2 PAIRING OF WIRELESS PTT

The wireless PTT transmitter should be paired with the corresponding receiver, which is connected in parallel with one of the PTT buttons on the main unit.

For paring a transmitter with a receiver in a main unit; short-circuit the two pads to the right on the backside of the main unit and, at the same time, press the button on wireless PTT transmitter.

If another wireless PTT transmitter is paired to the same receiver unit, it will have the same function as the first wireless PTT transmitter. However, if a third wireless PTT transmitter is paired to the main unit it will “replace” the one which was first paired to the main unit.

Notice: After approximately 100 000 pressings on the button, a new unit needs to be paired to the main unit, as the transmitter has a non-replaceable battery.

5.2.3 TECHNICAL INFORMATION ABOUT WIRELESS PTT

Life time of the battery:	More than 100000 pressings on the button.
Range:	Typ. 1.5 metres
Frequency, WLTX-B:	869 MHz
Usage temperature:	-20°C to +60°C
Storage temperature:	-55°C to +70°C
Weight: approximately	14 g

6. ACCESSORIES AND SPARE PARTS

*Please contact your **Authorized Peltor DECT-Com II Dealer*)***

DC2031	Battery lid for use with 3xAA standard batteries in main unit.
DC2032	Battery carrier for 6xAA auxiliary batteries (excl. batteries).
DC2033	Rechargeable NiMH-accumulator (2100 mAh)
DC2035	Screw for battery lid DC2031
DC2036	Screw for battery carrier DC2032
DC2041	Antenna, general, 1.8 — 1.9 GHz for main unit
DC2046	Antenna, omni directional with magnetic foot
DC2048	Antenna ring kit, one of each colour; red, green and black
DC2061	Mains adapter for charger/holder etc., common for EU, UK and US
DC2064	DECT-Com II Charger/holder, 9-15 V DC, IP42 (incl. mains adapter DC2061)
DC2068	Power Supply/holder, 9-33 V DC, IP67 (incl. mains adapter DC2061)
DC2071	Attachment clip, fully rotary for attaching the main units to clothes etc.
DC2072	Cable for Ground Mechanic
DC2078	Connector sealing plug
DC2-5001	Adapter cable for “dynamic standard”
DC2-5005A	Adapter cable for telephone 2.2 kOhm
DC2-5010	Adapter cable for ICOM, straight connector
DC2-5030	Adapter cable for Motorola GP340
DC2-5063	Adapter cable for Motorola Mototrbo
WLTX-B	Wireless PTT for remote control of the PTT function of an external radio connected to a DECT-Com II main unit (DC2811, DC2812 or DC2812)

7. APPROVALS

DECLARATION OF CONFORMITY

See last pages in this user’s manual!

APPROVALS

Electrical safety:	**EN 60 950:2001**
EMC:	**EN 301 489-01:2000** **EN 301 489-06:2000** **FCC part 15, Subpart D; RSS-213**
DECT/radio:	**EN 301 406-V1.4.1 2001**
SAR	**EN63211:2008** **FCC OET Bulletin 65, Supplement C, Edition 01-01**

8. WARRANTY

3M guarantee conformity with the contractual specifications of the quality and performance of the goods. Full information about the Peltor warranty is available on request from your local 3M office. “Non-conformity goods“ should be returned to your ***Authorized Peltor DECT-Com II Dealer****)*.

9. PROGRAMMING DECT-Com II UNITS

Special software and a programming holder is available for customizing several functions in the DECT-Com II system. Contact your ***Authorized Peltor DECT-Com II Dealer****)* for further information!

) For address to your nearest Authorized Peltor DECT-Com II Dealer, contact your 3M office!

July 2, 2010

Declaration of Conformity

3M Svenska AB declares that the equipment described hereafter is in conformity with the following European directives.

3M Svenska AB declara que el equipo descrito abajo cumple con las disposiciones de las siguientes directivas europeas

Type of product/model: **DECT-com II 1,8 GHz , DC2811, -12, -15**

Name of Manufacturer: 3M Svenska AB
Address: Box 2341, Malmstensgatan 19, SE 331 02, Värnamo, Sweden
Telephone No: +46 (0)370 69 42 00 *Telefax No:* +46 (0)370 151 30

Directive(s)

RTTE (Radio equipment and telecommunications)

(EN) The RTTE Directive sets requirements for electromagnetic emission and immunity limits for electric/electronic products liable to generate electromagnetic disturbance, or the performance of which are liable to be affected by such disturbance.

This equipment is in conformity with the provisions of Council Directive **1999/5/EC** and, where such is the case, with the national standard transposing harmonised standard(s) No: **EN 301 406, EN 60950, EN 62311**.

This equipment is identical to the RTTE which is subject of EC certificate of conformity No. **G0M21005-3251-T-62, G0M21005-3251-E-12** issued by **Eurofins**.

(ES) La Directiva CEM establece los requisitos de emisión electromagnética y límites de inmunidad para productos eléctricos/electrónicos susceptibles de generar perturbaciones o cuyo rendimiento pueda verse afectado por dichas perturbaciones.

Este equipo está fabricado de conformidad con las disposiciones de la Directiva del Consejo **1999/5/EC** y, cuando corresponde, con la norma nacional correspondiente a la(s) norma(s) armonizada(s) núm.: **EN 301 406, EN 60950, EN 62311**.

Este equipo es idéntico al CEM sujeto del certificado de conformidad CE número **G0M21005-3251-T-62, G0M21005-3251-E-12** emitido por **Eurofins**.

EMC (Radio equipment and telecommunicatons /EMC)

(EN) The EMC Directive sets requirements for electromagnetic emission and immunity limits for electric/electronic products liable to generate electromagnetic disturbance, or the performance of which are liable to be affected by such disturbance.

This equipment is in conformity with the provisions of Council Directive **1999/5/EC (RTTE)**

and, where such is the case, with the national standard transposing harmonised standard(s) No: **EN 301 489-1, EN 301 489-6.**

This equipment is identical to the EMC which is subject of EC certificate of conformity No. **G0M21005-3251-E-12** issued by **Eurofins.**

(ES) La Directiva CEM establece los requisitos de emisión electromagnética y límites de inmunidad para productos eléctricos/electrónicos susceptibles de generar perturbaciones o cuyo rendimiento pueda verse afectado por dichas perturbaciones.

Este equipo está fabricado de conformidad con las disposiciones de la Directiva del Consejo **1999/5/EC (RTTE)** y, cuando corresponde, con la norma nacional correspondiente a la(s) norma(s) armonizada(s) núm.: **EN 301 489-1, EN 301 489-6.**

Este equipo es idéntico al CEM sujeto del certificado de conformidad CE número **G0M21005-3251-E-12** emitido por **Eurofins.**

Notified bodies

Eurofins, Storkower Str. 38c, 15526, Reichenwalde, Germany

Värnamo, 2010-07-01
Place and date

Sigvard Nilsson, Development Manager
Name and function of the signatory

FP3689 Rev. a

3M Occupational Health &
Environmental Safety Division
3M Svenska AB, Box 2341
SE-331 02 Värnamo
Sweden
Phone: +46 (0) 370 65 65 65
Fax: +46 (0) 370 65 65 99
Email: peltorcommunications@mmm.com
Internet: www.3M.com/Peltorcomms

Please recycle. Printed in Sweden.
© 3M 2010. All rights reserved.